

**SUMMARY OF MEDICAL LITERATURE ASSOCIATING NEUROLOGICAL
DAMAGE WITH FORCES EXPERIENCED ON AMUSEMENT PARK RIDES**

(not including trauma or injury from collisions or other accidents)

Year	Country	Age/Sex	Pathology	Manifestations	Journal	Author
1999	Japan	24/F	Chronic subdural hematomas	Headaches	American Academy of Neurology	Fukutake T., et al.
1998	USA	37/F	Brown-Séquard syndrome and a meningioma causing severe cord compression.	Neck pain, numbness and altered temperature sensation	The Lancet, cited in La Presse Medicale 2000	Bateman et Pople
1998	France	31/M	Internal carotid dissection	Aphasia and convulsion	La Presse Medicale 2000	Kettaneh A. et al.
1998	France	35/F	Internal carotid dissection	Neck pain, headaches	La Presse Medicale 2000	Kettaneh A. et al.
1997	France	23/M	Basilar impression and hindbrain herniation	Ataxia, neck pain, brain stem dysfunction	Neurology 1998	Kettaneh A. et al.
1997	France	29/F	Vertebral dissection	Headaches, neck pain and cerebellar infarction.	Rev Méd Interne	Gadenne A., et al.
1997	USA	77/M	Subdural hematoma and compression of left lateral ventricle.	Nausea, vomiting, headache and dysarthria.	The American Journal of Medicine	Snyder, Richard W., et al.
1996	France	29/F	Internal carotide dissection	Headaches	The Lancet	Biousse V., et al.
1996	USA	39/F	Diffuse meningeal enhancement and "brain sagging"	Severe headache, nausea photophobia	The Lancet	Schievink et al.

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1996	France	31/F	Vertebral artery dissection	Vertigo, week of neck pain, headaches	The Lancet	Biousse V., et al.
1995	France	53/F	Internal carotid dissection	Pain in the eyesocket	La Presse Medicale 2000	Kettaneh A. et al.
1995	London, Ontario, Canada	64/M	Subdural hematoma	Headaches	N.E. Journal of Medicine	Bo-Abbas Y., et al.
1994	Vancouver, Canada	26/M	Subdural hematoma	Headache, nausea and vomiting	Journal of Trauma	Fernandes C.M., et al.
1991	USA	32/F	Subarachnoid hemorrhage and cerebral artery aneurysm.	Headache and lost consciousness.	J. Neurosurg	Senegor, Moris
1979	USA	13/F	Carotid compression	Headache, right hemiparesis, aphasia and difficulty speaking	JAMA	Scheer et Carlin

Source: Letter to Rep. Edward Markey from Dr. Gerald Fischbach, Director, National Institute of Neurological Disorders and Stroke (NINDS), with attachments (April 10, 2000.)